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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,571	10/31/2003	Takao Nakazaki	044499-0183	8423
22428	7590	07/21/2005	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			HE, AMY	
			ART UNIT	PAPER NUMBER
			2858	

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/697,571	Applicant(s) NAKAZAKI ET AL.	
	Examiner Amy He	Art Unit 2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/16/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant admitted prior art (see specification, pages 1-3), in view of Honma (U. S. Patent No. 6, 175, 295).

Referring to claims 1-6, applicant's admitted prior art discloses a proximity sensor device (specification pages 1-3) comprising a detection coil having a core, and the detection circuit includes an oscillation circuit having the detection coil serving as a resonance element; and wherein a metallic film (metallic deposition portion) for electrostatically shielding the detection coil is formed at the outer surface of the core, and both ends of an insulating flexible film with conductor pattern are connected to the metallic film of the core and also connected to a ground pattern of the detection circuit board, the sensor further comprising:

the detection circuit board having the detection circuit (printed wiring board having the circuit, see page 1, description of the prior art section of the instant application); and

a cylindrical case (case of the proximity sensor);

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the insulating flexible film having a conductor pattern (see specification page 1, description of the prior art section of the instant application) is spirally wound around the detection circuit board in a single and cylindrical manner so as to form a cylindrical surface, for electrostatically shielding the detection circuit; and the direction of an axis of the cylindrical surface is parallel to the direction of the axis of the case.

Applicant's admitted prior art does not disclose using a wire coated with insulating material for shielding and that the wire is wound in a planner manner.

Honma discloses using a triple layered insulated wire for shielding (abstract; col. 3, lines 30-35; claim 1).

A person of ordinary skill in the art would find it obvious at the time of the invention to substitute the insulating flexible film of applicant's admitted prior art with the triple layered insulated wire as taught by Honma for shielding, since it has been held to be within the general skill of a worker in the art to select a known tool (insulated wire) for a known purpose (shielding) on the basis of its suitability for the intended use as a matter of obvious design choice *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA). Furthermore, it would have been obvious to a person of ordinary skill in the art to wound the insulated wire in a planner manner, or other desired manner depending on the specific applications, since it has been held that changing the form/shape of an invention involves only routine skill in the art. *In re Dailey*, 149 USPQ 47 (CCPA 1976).

Referring to claims 7-8, applicant's admitted prior art in view of Honma discloses the sensor device as in claim 4. Applicant's admitted prior art in view of Honma does not specifically disclose that the coating strength of the coated electric wire for use in

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shielding is greater than or same as the one used as a coil wire of the detection coil. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify applicant's admitted prior art to use different/same coating strength for the coated electric wire and the coil wire of the detection coil, since changing the coating strength of the coated electric wire does not change the function of the claimed sensor device.

Referring to claims 9-11, applicant's admitted prior art in view of Honma discloses a sensor device comprising: a detection circuit board having the detection circuit; a cylindrical case; and a coated electric wire wound around the detection circuit in a planer manner as discussed above in the rejection of claims 1-6. Applicant's admitted prior art in view of Honma does not specifically disclose wounding the coated electric wire around a light receiving element and a board holder of a photoelectric sensor. A person of ordinary skill in the art would find it obvious at the time of the invention to further modify applicant's admitted prior art to use the coated electric wire on a photoelectric sensor or other sensors, for shielding the detection circuit of the sensor device, since the intended use of the claimed invention (i.e. for shielding photoelectric sensor device) did not result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. The prior art structure is capable of performing the intended use of shielding the detection circuit of a photoelectric sensor device. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Response to Arguments

2. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy He whose telephone number is (571) 272-2230. The examiner can normally be reached on 8:30am-5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AH

July 19, 2005.


ANJAN DEB
PRIMARY EXAMINER